

SIDE-POWER
Thruster Systems

PJC-211 S-link Control Panel

**Installation and user's manual
v1.1.0**

*Keep this
manual onboard !*



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Made in Norway

PJC-211

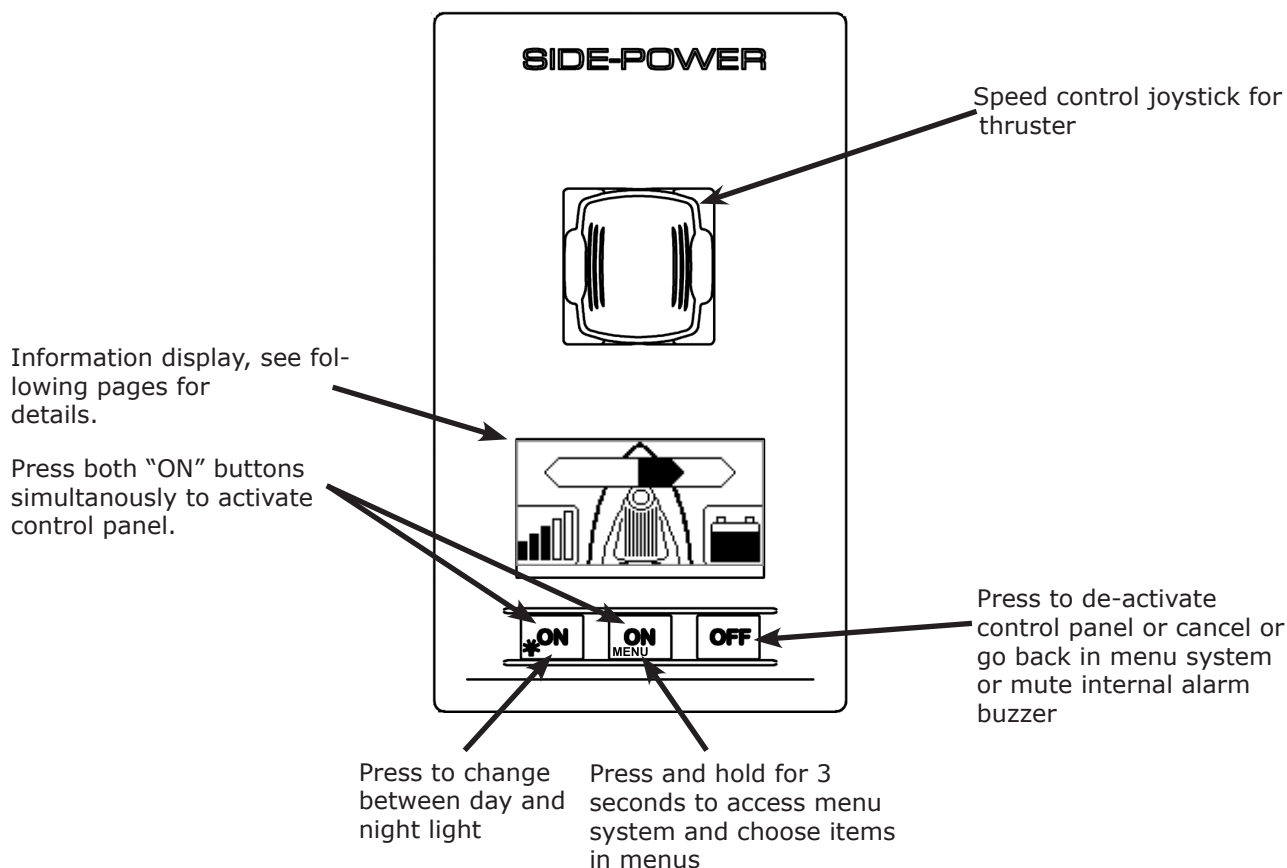
Control panel with S-link™ CAN-bus connection

Product features

- For proportional thruster control with the new Power Controlled DC-thrusters
- Finger tip control speed control with purpose designed joysticks
- Back-lit LCD display with instant feedback
 - System status
 - Amount of thrust & direction of thrust
 - Thruster temperature/remaining run time
 - Battery supply voltage to thrusters
 - Monitoring of Automatic Mainswitch (informs if the fuse has blown or the manual override is activated)
- Interactive multi-language menus
- CAN-Bus communication with thrusters and accessories
- Plug & play cables, waterproof and compact connectors
- Diagnostics via panel
- Built-in audible alarm "buzzer"
- Connector for external "buzzer"/loud audible alarms
- Supports SR80 & SR100 retractable thrusters with or without Speed Control



DO NOT connect any other control equipment to the S-link controlled products except Side-Power original S-link products or via a Side-Power supplied interface product made for interfacing with other controls. Any attempt to directly control or at all connect into the S-link control system without the designated and approved interface, will render all warranties and responsibilities for the complete line of Side-Power products connected void and null.



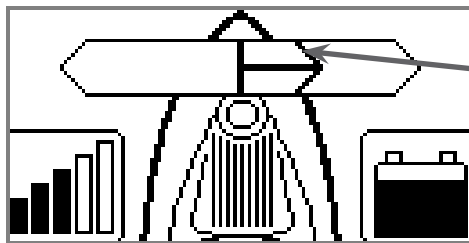
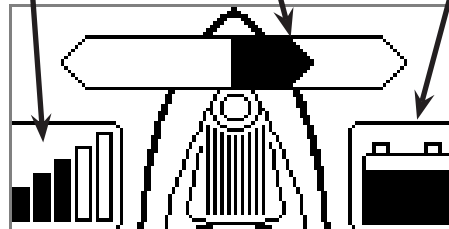
DISPLAY IN NORMAL USE:

Bow thruster information

Remaining run time of thruster based on the electric motors heat at present. As bars empties you have less run time left.

Thrust power and direction

Battery supply performance based on delivered voltage to thruster. As the battery empties, you have less power and less run time left

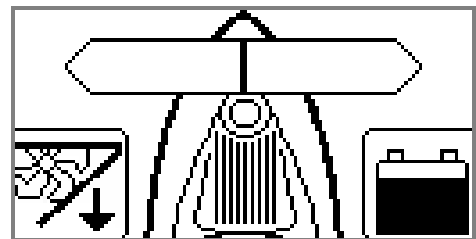


Indicating amount of thrust set by other control units in the system, i.e additional PJC-212/211 panels, 8700 Retract panel, input via 8730 S-link external switch interface (remote control, foot switches etc.)

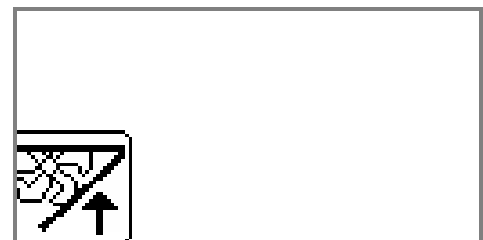
If two or more units is set to run the thruster in opposite direction, this information will not be shown. Alarms are ignored for 3 seconds after turning panel ON.

SPECIFIC INFORMATION WHEN USED IN A SYSTEM WITH SR-SERIES RETRACTABLE THRUSTERS

Symbol shown when the thruster deploys



Symbol shown when the thruster retracts



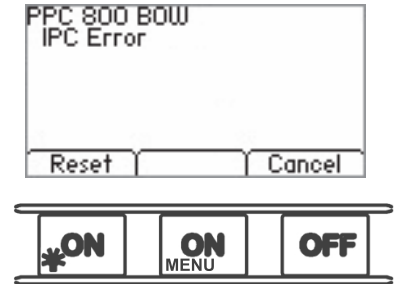
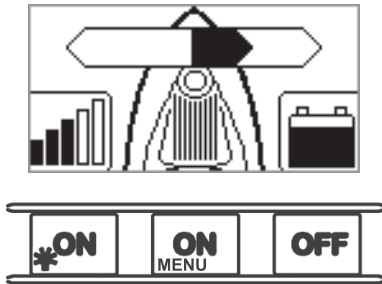
FIRST TIME SETUP

After installation of a S-link thrusters system, a **SCAN SYSTEM** procedure to setup control panels, thrusters and additional equipment must be completed before the system can be used.

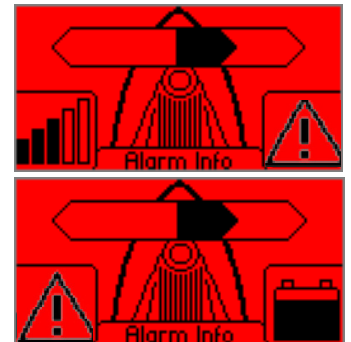
DISPLAY WHEN ALARMS:

When there is a problem or a fault, the panel will show this alarm situation by the LCD display blinking in red color.

The panel will also change to show "Alarm Info" beneath the "boat", indicating that by pressing the corresponding button (centre ON) you will get information about what the problem is (example below).



If the problem is that the voltage delivered from the batteries are too low for the thruster to be allowed to run, this is shown directly on the display by the battery that is not delivering being replaced by the alarm sign (see example below).



If the issue is something else, the alarm signal will replace the remaining run time indicator for the thruster / system that is causing the alarm.

Voltage below 9.3V/17.5V (12V/24V system) or temperature above 80°C:
single beep every 2.4 seconds



Voltage below 8.9V/16.3V (12V/24V system) or temperature above 90°C:
two beeps every 2.4 seconds



Voltage below 8.5V/15V (12V/24V system) or temperature above 100°C:
red backlight in display and three beeps every 2.4 seconds



The last warning signal will also be triggered when operating the thruster with the joysticks, except with no external buzzer output.

If one or both of the thrusters enters an alarm state (Voltage below 8 Volts - for both 12 and 24 Volt systems - or temperature above 110°C): continuous beeps. Temperature must drop below 100°C before the thruster can be operated again.



SPECIFIC ALARMS WHEN USED IN A SYSTEM WITH SR-SERIES RETRACTABLE THRUSTERS

Alarm shown when the thruster is obstructed while deploying.
The internal buzzer will sound.
Buzzer can be muted by pressing the "OFF" button



Alarm shown when the thruster is obstructed while retracting.

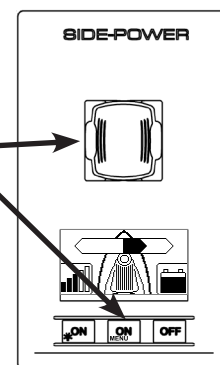


MENU SYSTEM:

Access menu system by pressing Menu button (middle 'ON' button) for 3 seconds

Move around in menus by using joysticks

Follow instructions on the screen and press buttons as indicated on LCD screen



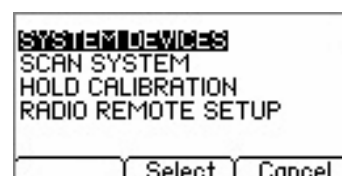
LANGUAGE

Choose language by moving bow joystick:
English, Norwegian, German, French, Spanish and Italian.



SETUP

Use joystick to choose function
Select: Opens selected function
Cancel: Returns to Main Menu

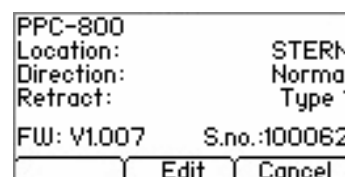


SYSTEM DEVICES

View all devices connected to S-Link and manually change setup values.

Slide between devices with the joystick to see device information as location, thruster direction, retract type, firmware version and serial number.

Edit: Change location to BOW, STERN, BOW-PORT or STERN-PORT, thruster direction to Normal or Inverted or retract type.
For Automatic main switch 1 8977 and interface 8730, you can only change location.
Use joystick to alter values.

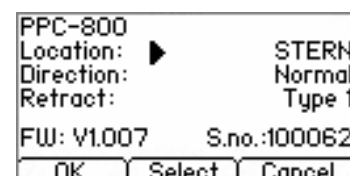


Location:

Can change selected device location between BOW, STERN, BOW-PORT or STERN-PORT. For PPC800 or SR61242 only. (use BOW-PORT on second bow thruster and STERN-PORT on second stern thruster)

Direction:

Can change thruster direction to Normal or Inverted. Change this value if the thruster is running in the wrong direction.
For PPC800 or SR61242 only.



Retract:

Setup retract types. For PPC800 or SR61242 only.

Normal: stand alone, use this for PPC800 without any retract or SR61242 (SR80/100) without PPC800.

Type 1: Retract SR61242 (SR80/100) with PPC800, both devices need to be set to Type 1.

NB!

WHEN INSTALLING A RETRACT THRUSTER WITH SPEED CONTROL (PPC800), DO NOT TRY TO RUN THE THRUSTER UNTIL YOU HAVE COMPLETED THE ENTIRE SETUP PROCEDURE CORRECTLY!

NB!

This is to prevent damage to the thruster caused by running the thruster while the retract mechanism is not fully opened.

OK: Saves changes and quit editing.

Select: Switch between Location, Retract and Retract settings.

Cancel: Cancel operation without saving changes.

Cancel: Returns to "SETUP" -menu.



SCAN SYSTEM

After selecting "SCAN SYSTEM" the display shows "SCANNING SYSTEM PLEASE WAIT!" for a few seconds while the panel is scanning the S-link bus for attached equipment. This scan can take up to 15 seconds.

After a completed system scan, the thruster with its associated AMS will be shown. Use the joystick to toggle between bow and stern thruster information.

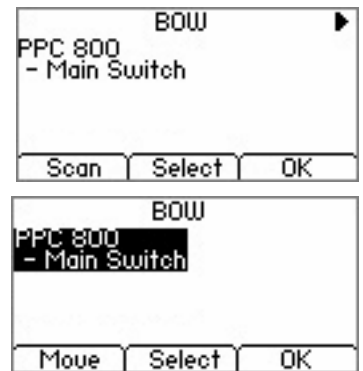
Scan: Re-Scan the S-link bus

Select: Select thruster. Selected thruster will be highlighted and can be run with the designated joystick to confirm its location

Move: Moves the selected thruster assignment from bow to stern/stern to bow

OK: Saves changes and returns to SETUP-menu

Any changes made will be relayed to all other installed panels



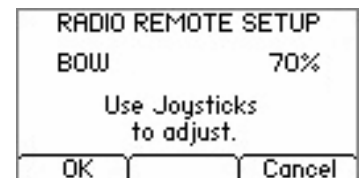
RADIO REMOTE SETUP

Adjusts the amount of thrust which the ON/OFF remote control will run at. Use joysticks to adjust applied thrust

OK: Saves changes and returns to "SETUP"-menu

Cancel: Returns to "SETUP"-menu without saving changes

Any changes made will be relayed to 8730 INTERFACE units with Firmware 1.203 or newer



INFO

The info selection is a service screen. Choose the Info screen if you wish to check your system. When in this screen you will be able to run the thrusters individually with the joysticks or simultaneously with the "Hold" function.

You will be able to see two screens by pressing the "more" button

1st screen : Control panel info:

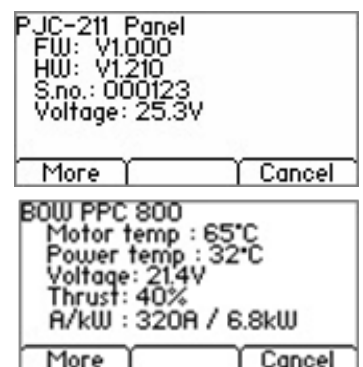
- Firmware and Hardware version
- Serial number
- S-link voltage

2nd screen: Bow thruster information

- Motor temperature
- Speed controller (PPC800) temperature
- Actual voltage
- Thrust percentage it is running at
- Current consumption & watt at present.

More: Changes to next information page

Cancel: Returns to main menu





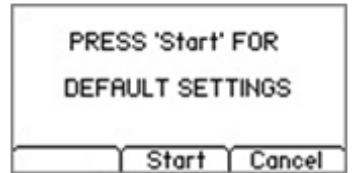
DEFAULT

DEFAULT SETTINGS

Reset all settings to factory default - follow instructions on screen

Start: Resets system to default factory settings

Cancel: Returns to main menu without changes



PANEL

PANEL SETUP

BACKLIGHT LEVEL

Set level of panel backlight in daylight mode, 1-5

NIGHTLIGHT - COLOR

Select color of backlight in nightlight mode:
GREEN, BLUE, RED, WHITE

NIGHTLIGHT - LEVEL

Set level of panel backlight in nightlight mode, 1-3

TIMER AUTO OFF

Set the time from last use to auto panel shutdown.
Set from 5-60 minutes in 5 minute steps or OFF (panel will
not turn off automatically)



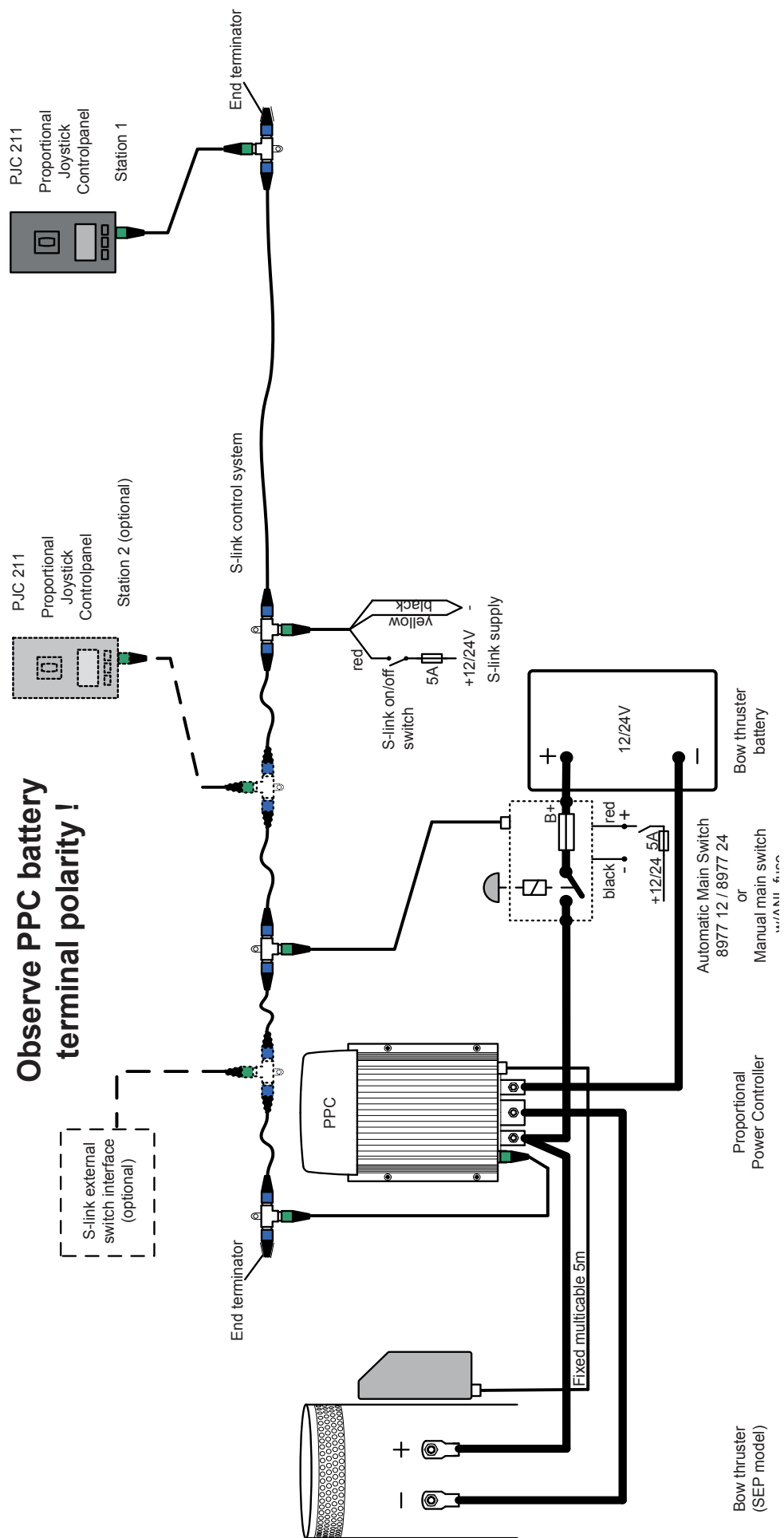
OK: Saves changes and returns to main menu

Cancel: Returns to main menu without saving changes

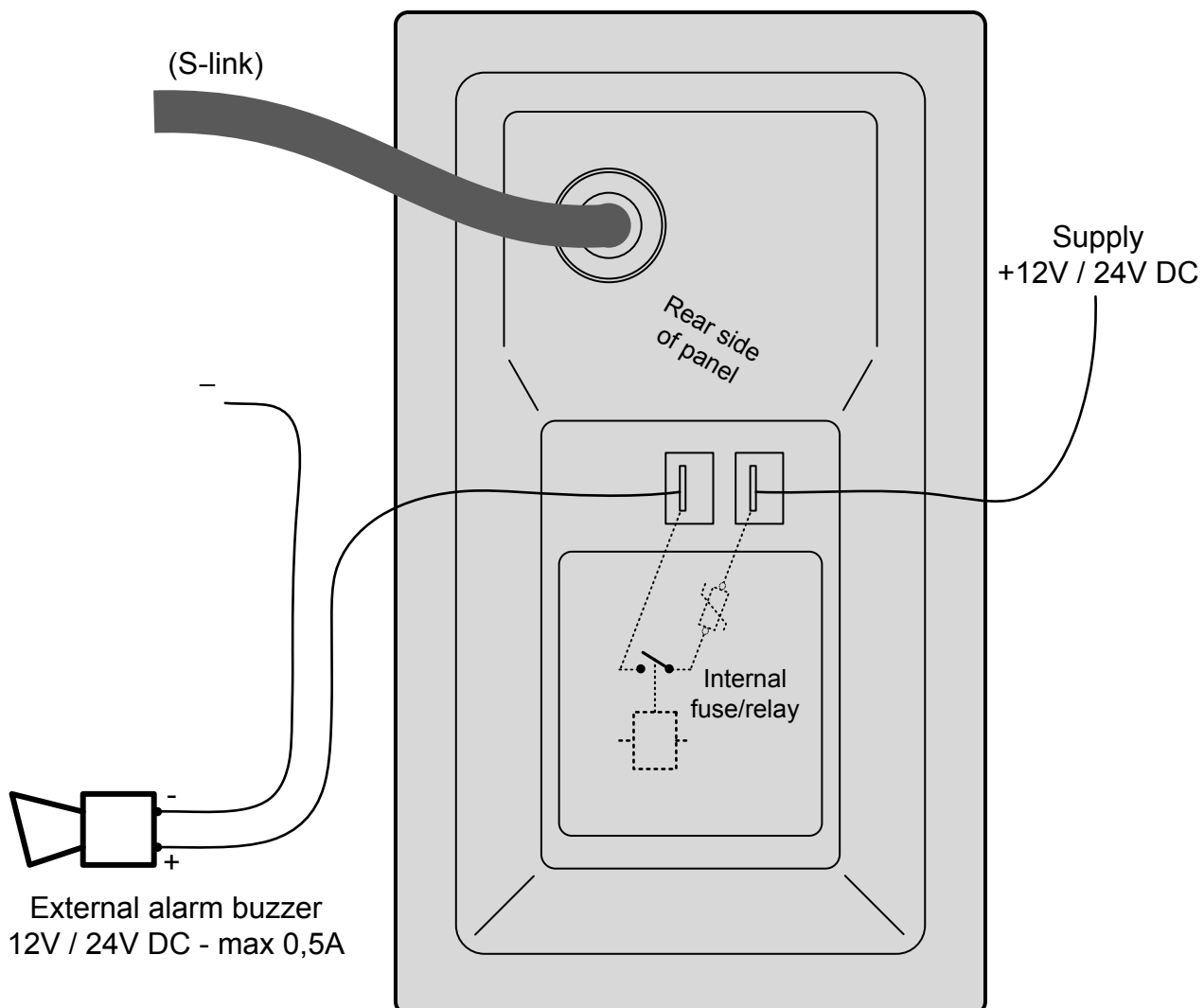
Error message overview

Errors shown in display	PPC 800	AMS 8977	Retract	Description	Action
Motor Overcurrent	X			Motor current over 1400A	Check the thruster for obstacles an that the propeller can turn freely. Check motor wiring for damage - if not, thruster must be serviced by authorized personnel
Motor Overtemp	X		X	Motor temperature over 110°C	Let motor cool down below 100°C
Power Overtemp	X			PPC800 temperature over 80°C	Let PPC800 cool down below 45°C
Low Power	X		X	Low voltage on Motor	Recharge battery
Termoswitch	X		X	Motor temperature over 110°C	Let motor cool down below 100°C
IPC Error	X		X	Motor relay faulty	Thruster must be serviced by authorized personnel
Driver fail	X			PPC800 fail	PPC800 must be serviced by authorized personnel
Thruster No Current	X			No power to thruster	Check connections to thruster
Thruster Relay Fail	X			No current on motor relay coil	Check connections on motor relay
System Error	X	X	X	Fatal error	System must be serviced by authorized personnel
Communication Fail	X	X	X	No communication with device	Check S-link and power connections
Power Failure		X		No power	Check power connections
Fuse Blown		X		Fuse blown	Replace fuse in main switch
Manual Override		X		Main switch manually overridden	Pull main switch to cancel manual override
Deploy obstructed			X	Retract obstructed while deploying	Turn off all panels. Go for lower speed/deeper water and retry.
Retract obstructed			X	Retract obstructed while retracting	Turn panel on and manually override main switch. This will make sure the thruster stay deployed while servicing. Remove obstruction. Engage main switch and try operating thruster again.
Power Fail Actuator			X	Actuator not getting any power.	Check actuator connection or power to actuator.

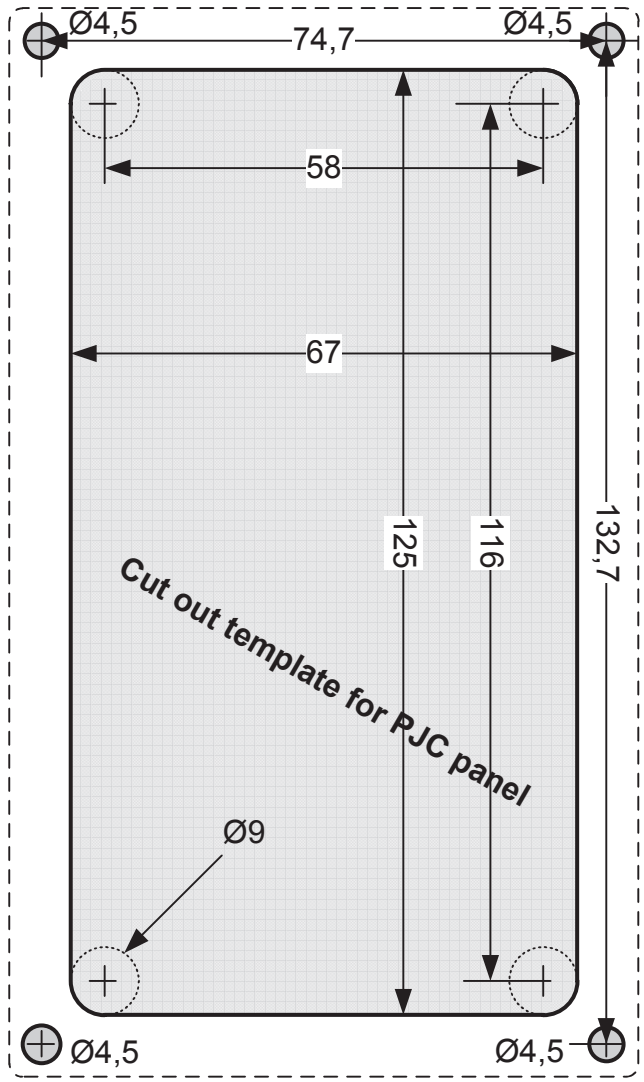
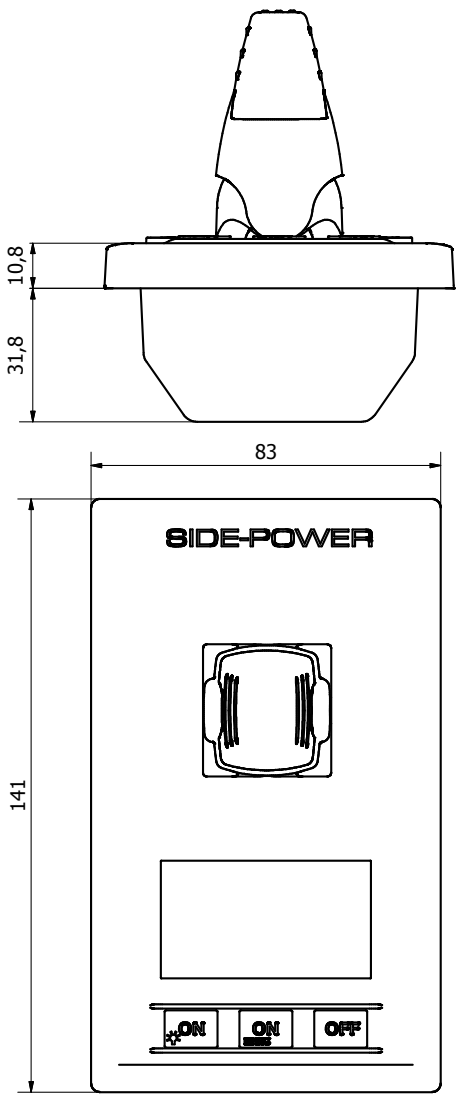
Sample S-link system



Connections for optional external buzzer/audible alarm



Measurements



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